



AIR DUSTING—This picture shows a plane from Medford Air Service as it swoops low to apply spray materials on an orchard near Medford. A second plane in the background is banking for a pass adjacent to the first. This method of spray

Orchardists Use Planes For Spray Operations

Local orchardists this year have felt the brunt of one of the wettest springs in several years.

According to weather bureau officials at the Medford airport, precipitation last month totaled 6.54 inches, setting a moisture record for the month of March. Previous high moisture record for March was established in 1940, when precipitation totaled 6.19 inches.

Excessive rain this spring hampered pruning operations and further complicated spray programs, which are dependent on favorable weather and firm ground in the orchards.

Reports from pear industry

sources reveal that wet ground necessitated additional power units to pull heavy spray rigs through low areas. In some cases as many as three tractors were needed to negotiate areas which were especially soggy from the unseasonal rains.

Many growers faced with impossible fields resorted to spraying with airplanes, some for the first time, in an effort to apply the dormant spray needed to combat pear psylla, red mite and San Jose scale. The air application, considered by many to be a more expensive operation, was tried this year as an expedient to get the protective sprays on in any way possible.

Some orchardists reported difficulty has been experienced in getting good application on the underside of trees with air spraying, but heavier applications tend to alleviate this condition. Considerable conjecture as to the relative merits of the air application as compared to ground application is still going on and no appraisal of degree of control will be complete until later this year.

In the past, orchardists have used airplanes for dusting operations but no great effort has been made to include air-application in dormant spray programs.

Industry spokesmen noted that the more costly use of additional equipment and, in some instances, the use of planes in applying dormant spray was vital when considered in the light of the damage which could be caused by failure to spray. It is estimated that a 1 per cent loss of the total crop due to any cause would amount to an economic loss of \$150,000 to the area.

Colorado Trip Offered to Youth

Chances to try for an expense-paid trip to Ft. Collins, Colo., are offered to Jackson county 4-H club members and Future Farmers of America in a contest sponsored by Oregon cooperatives, according to Glenn Klein, county 4-H agent.

Purpose of the contest is to encourage 4-H club and FFA members to learn more about cooperatives and farm business according to Klein. State winners will be guests of the American Institute of Cooperative conference, Aug. 18-22 at Fort Collins.

4-H winners in the county will be awarded plaques. State winner making the Colorado trip will win a \$50 scholarship.

The FFA state winner will compete with state winners in the western region. The regional winner receives an expense-paid trip for four chapter members and their adviser.

Entry forms and further information are available at the county 4-H office in the courthouse. Deadline for entries is June 1.

Beef Cattle Hormone Study Report Slated

Corvallis—Results of two methods of boosting beef animal gains with hormone treatment will be reported to Oregon cattlemen April 10 at the Oregon State college Malheur branch experiment station near Ontario.

Six test groups of yearling steers will be on display for comparison in gains between feeding stilbestrol hormone and implanting small pellets of the hormone under the animals' hides. The OSC trials have also drawn comparisons between feeding ammoniated beet pulp and regular beet pulp.

Neil Hoffman, Malheur experiment station superintendent in charge of the trials, says the program will start at noon at the station feed lots five miles south and west of Ontario on the Vale highway. The public is invited.

application was used to a greater extent in the Rogue valley this year due to the wet condition of orchards which hampered use of heavy ground equipment.



WATER IN FIELD—This orchard, with surface water remaining after unseasonal rains, shows the conditions faced by many growers in trying to carry on normal spray operations. Some orchards in low areas are still plagued with these conditions.



SPRAY OPERATIONS—Dusting operations were progressing more normally than early spray operations, which necessitated as many as three tractors to pull heavy spray rigs loaded with liquids. Some orchardists reported difficulty in even getting lighter dusting units, like the one shown above, through low areas. With better weather and good drainage, many of the orchards will be back on schedule next week.

Officials Explain Pink Bud Spray

Pink bud spray should be applied to pear trees when the blossoms are well separated in the cluster, according to C. B. Cordy, county horticulture agent, and L. G. Gentner, entomologist for the southern Oregon branch experiment station.

For Bartlett, Bosc and Winter Nelis, eight gallons of liquid lime sulfur or 12 pounds polysulfide per acre are recommended. On D'Anjou and Comice, seven pounds of ziram is recommended.

Cordy and Gentner added that 24 pounds of kolofog per acre should be used if mildew is apparent on D'Anjou. They noted that few growers will have to apply kolofog, since mildew on pear trees is generally present only where there is a mildew-infested apple orchard nearby.

If six pounds parathion or 12

pounds malathion was not used in the pre-pink stage, it should be added to this spray, if the dormant spray was not applied; where aphid is a problem; or where scale was severe and additional control is desired. In the latter case, Cordy and Gentner suggest use of parathion. If lime sulfur and parathion are combined, they cautioned against allowing the mixture to stand.

HOT STUFF

Easton, Conn.—(U.P.)—Police are looking for a "hot" furnace.

The \$1,700 oil furnace was stolen from the home of Dr. Eugene W. Walzer.

"THIRTY"

Robinson, Ill.—(U.P.)—Inky, a black cat that had spent most of its life around newspaper plants and printing shops, died at the age of 16½ years.

Weeds and Herbicides

By RAY HUBBELL
County Weed Control Supervisor

New chemicals for weed control are being introduced each year. The most commonly used herbicide is 24D. The outstanding feature of the 24D hormone type of herbicide is that it has an action on the plants similar to that of the naturally occurring hormones or auxins known to be present in many plants.

The effect of these substances on plants is very subtle, in some cases causing extreme changes in the living processes going on in the plant.

Effect of Chemicals
The earliest indication is the curling and twisting of stems and leaves due to the effect of chemicals on cell growth. The plant then begins to show discoloration, followed by enlargements of certain tissues.

While these outside changes are taking place, many very severe changes are taking place inside the plant. The living processes are drastically enough upset to cause the plant's death.

These chemical compounds are so highly effective in slowing plant growth or bringing about injury that their use for weed control may be hazardous to nearby crops. Even under the best of conditions, some spray particles will drift at least a little way.

Damage to Plants
Extreme low volume spraying, wherein the spray droplets are broken into very small particles, is especially dangerous on windy days and may cause damage to other crops in the area.

The parent compound of 24D is a white, crystalline organic acid, too insoluble in water to be used directly for field application. For this reason, the chemical is processed to form amine salts and esters. Each form has its own peculiarities. To some extent, all differ even in effect on plants.

The ester form of 24D varies between a low melting, waxy like solid, to a liquid. The ester derivatives of 24D have physical and solubility properties closely akin to oils and low melting greases. In other words, these substances dissolve in oil and other organic solvents, and certain of them have a tendency to evaporate or volatilize in a manner similar to oil or gasoline.

Severe Symptoms
It must be remembered that even small amounts of 24D or one of its products are sufficient to cause severe symptoms in the case of susceptible plants. Injury can arise from volatilization of this form of herbicide.

The amine salt form of 24D might be said to be more nearly like sugar or common salt in its physical properties. These are usually formulated with a small amount of water and certain other materials, such as wetting agents.

The greatest danger from the use of 24D is that of crop damage by reason of drift of this chemical, either as a vapor or as spray particles. As pointed out earlier, the ester form of 24D is the only form that will evaporate into the air and present much hazard. In applying 24D during periods of warm weather, remember this hazard and avoid the use of the ester forms insofar as possible. The other hazard is that of actual drift of spray particles in the wind.

To reduce the hazard of drift, the following practices are recommended:

1. Use as large a volume of water as practicable.
2. Use the largest possible nozzle that will work the desired volume.
3. Use low enough pressure in application to give good, uniform results.
4. Do not spray when wind velocity is high.
5. Always try to spray downwind from susceptible crops and make application close enough to the ground to permit uniform coverage.

Read the label, know the material being used and know how it is to be applied. With these few precautions, better results will be achieved.

(This is another in a series of articles on weeds and weed control written for the Mail Tribune by Ray Hubbell, county weed control supervisor. Readers having questions pertaining

Farm and Garden

4-H Club Summer School Applications Due on April 15

Applications from local 4-H members desiring scholarships for the annual 4-H summer school in Corvallis June 11-21, must be filed by April 15, according to Miss Marjorie Hattan and Glenn Klein, county 4-H agents.

Jackson county's quota for the school will be 50 members, the same as last year. Total cost will be about \$30, which includes \$24.50 for room and board, 50 cents for insurance and \$5 for transportation to and from Corvallis.

Miss Hattan and Klein said all local club members will receive a part or full scholarship for the trip. Most of the scholarships will be for \$22.50, it was pointed out, and no club member will be required to pay more than \$7.50 of his own money.

Fill Out Blank
In order to be considered for a scholarship, a club member must fill out an application blank, return it with an up-to-date copy of My Permanent 4-H Club Record and a \$2.50 registration fee to the county 4-H office by April 15.

Registration fees will be applied to transportation cost of those attending summer school. The money will be refunded to those who do not attend the session.

Application forms have been mailed out to club members, and additional forms are available at the county agents' office in the courthouse.

O&C Public Domain Land With Claims to Be Examined by BLM

All O and C lands and public domain in Jackson county where mining claims exist will be examined sometime this year to determine surface rights on the claims under public law 167, according to E. K. Peterson, district forester for the bureau of land management.

Examinations are now being made on four townships in Josephine and Douglas counties and will begin in Jackson county later this year.

Public law 167, approved by President Eisenhower in 1955, authorizes government agencies to manage surface resources on valid mining claims filed before July 23, 1955.

Determine Surface Rights
The agency responsible for the land must determine surface rights of legitimate miners to prospect for and develop mineral resources, according to State BLM Supervisor Virgil T. Heath.

Heath said the miner can use timber on the claim for mining purposes or remove the timber for clearance purposes. But, he added, until the miner obtains his patent the government can manage vegetative surface resources on the claim provided the government does not interfere with the miner's operations.

The new law does not affect the miner until notice of a procedure for determining surface rights has been published for the area in which the claim is located, Heath said.

Three Choices
The claimant has 150 days after the date of first publication to ignore the notice, therefore permitting the government to manage surface resources; to execute a waiver relinquishing all surface rights on the claim contrary to government rights; or to file a verified statement asserting validity for the claim.

If a verified statement is filed the claim would be examined by BLM mining valuation engineers, Heath said. Whatever the decision the claimant would retain his mineral rights, he said. If the decision was in his favor he also would retain all surface rights.

Copies of the regulations under public law 167 may be secured

to weeds and herbicides may address them to the county agents' office, courthouse, Medford. Answers will be given in this column or by direct mail.)

Young Farmers Hear Veterinarian Speak

Dr. E. R. Derflinger, assistant state veterinarian, was guest speaker Monday at a meeting of the Jackson County Young Farmers.

Derflinger spoke on tuberculosis and brucellosis control in dairy cattle. He has been in the county this week assisting with

the local cattle testing program.

The Young Farmers scholarship committee, headed by Charles White, reported there are six applicants for the award. The group is awarding the full-tuition scholarship to a Jackson county youth who will have graduated from high school by June and who intends to study agriculture in college.

The applicants include Charles Elmore, Applegate; David Woolfolk, Eagle Point; Bob Elden, Central Point; Fred Bowen, Rogue River; Jerry McDonald, Eagle Point; and Harold Tibbets, Eagle Point.

Three Finalists
Three finalists for the scholarship will be selected Sunday night by committee members, who will meet at the Lee Hocksworth residence, 911 South Ivy st., Medford. The finalists will appear at a future Young Farmers meeting before the scholarship winner is selected.

During the Monday meeting, which was held at Kim's Restaurant, the group decided to purchase a steer, which will later be sold and proceeds used to sponsor a greased pig contest at the county fair this summer.

Wool Incentive Pay Forms Due April 30

Corvallis—Sheep raisers must file applications before April 30 to collect incentive payments for shorn wool and unshorn lambs sold during the past year, reminds W. Y. Fowler, Oregon State college livestock marketing specialist.

Payments are for sales made during the past year, ending March 31. Applications should be filed at county agricultural stabilization and conservation offices. The incentive payment program was started by the U.S. department of agriculture in 1955 to boost sheep numbers in this country that have declined most of the time for the past 20 years.

Incentive payments will be figured on the same basis as last year—a percentage "bonus" applied to the individual grower's net sales proceeds. In other words, Fowler says, the better the grower's sale the bigger the bonus. Details of how the incentive program works are available from local ASC offices or county extension offices.

Experimental Type Tractor Introduced

An experimental Typhoon tractor, featuring new functional and styling features, was recently manufactured by Ford Motor company's tractor and implement division.

John Deaver of Deaver Tractor and Implement company, local Ford tractor dealer, said the Typhoon is the first tractor to be powered by a free piston turbine engine. The engine is capable of burning a wide variety of hydrocarbon fuels, including many agricultural products, he said.

It is larger overall than current models, with a wheelbase of 99 inches. A large intake scoop on top of the hood supplies air to the power plant. Two teardrop-shaped stacks extend through the top of the engine hood and direct the exhaust gases high into the air.

Electronic Beam Latest Tool of Soil Research

Berkeley, Calif.—(U.P.)—The electron beam that can sterilize soil, presumably without changing its chemical or nutritional qualities, is the latest tool of soil research.

Associate Prof. A. Douglas McLaren of the University of California said radiation has used a high-intensity electron beam of nine million volts to kill all bacteria and fungi in a sample soil. Such soil lends itself readily to study with pure cultures of plant pathogens, nitrogen fixers, soil-borne viruses and other factors.

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